



PROGRESS REPORT NO. 148

TO: Monica Tonel, U.S. Environmental Protection Agency (EPA) – via Email
Kathryn Cerise, EPA – via Email

FROM: Kris McCaig, Teck American Incorporated (TAI)

Cc: Denise Mills, TAI – via Email

DATE: November 6, 2018

FILE NO: 01-773180-000

RE: Upper Columbia River (UCR) Remedial Investigation/Feasibility Study
(RI/FS) - Progress Report No. 148 Month Ending October 2018

Pursuant to Paragraph 39 of the June 2, 2006 Settlement Agreement (Agreement), the following is intended to provide a summary of activities completed during the past month in compliance with the aforementioned Agreement. It is also intended to provide a brief summary of pending and on-going activities.

Plant Tissue Study – Processing and analysis of samples collected during the August 2018 field sampling continued during the month of October and provided finalized laboratory reports and data validation summaries to our third party validator for validation as they became available.

Northern Pike Tissue Study – TAI’s contract laboratory completed analysis of the northern pike fillet tissue composite samples per the quality assurance project plan (QAPP) and TAI’s third party validator completed data validation. TAI notified EPA via electronic mail on October 16, 2018 that the validation files were available for download to conduct their quality assurance review. EPA provided a memo to TAI dated October 18, 2018 “Review of Data Validation Reports for Upper Columbia Basin Northern Pike Tissue Study, Inorganic Analyses.” TAI transmitted the final validated data with location information to EPA via electronic mail on October 25, 2018. TAI provided comments to EPA on October 2, 2018 for the draft Northern Pike Field Summary Report that EPA sent to TAI for review on September 18, 2018.

Soil Amendment Technology Evaluation Study (SATES) – TAI continued coordination with the SATES team and Kira Lynch, Superfund Technology Liaison with the Office of Research and Development, Office of Science and Policy during the month. Work focused on planning SATES Phase II, which includes bench-scale evaluation of amendments. On

October 15, 2018, TAI provided to EPA the draft *Phase IB SATES Soil Amendment Technology Screening and Design* technical memorandum, which describes the proposed soil amendment screening, evaluation, and selection process for bench-scale evaluation (Phase II). Citizens for a Clean Columbia provided comments, which TAI will address in the pending draft Phase I Data Summary Report response to comments. EPA also provided comments, which TAI will address in the Phase II Work Plan currently under development. On October 16, 2018, TAI delivered to EPA the final *Work Plan for the SATES Phase II: Bench-Scale Treatability Studies Soil Collection* and on October 18, 2018, TAI's consultant Arcadis collected Phase II bench-scale soil in accordance with the work plan.

Baseline Ecological Risk Assessment (BERA) Toxicity Reference Value (TRV) Development:

Soil TRVs – TAI received a letter from EPA dated July 25, 2018 with comments on a brief memorandum TAI submitted to EPA in June to document the change in approach for soil TRVs. Two conference calls were held with EPA during the month of September to discuss EPA's comments and possible path forward. At the time of writing, TAI delivered response to EPA comments and a revised approach summary to EPA on November 9, 2018.

Sediment and Porewater TRVs – TAI received a letter dated August 24, 2018 with EPA's comments on the draft Sediment and Porewater TRV document TAI delivered to EPA on July 16, 2018. TAI delivered a response to comments and a revised document to EPA on October 19, 2018.

Phase 3 Sediment Study – TAI obtained all necessary permits and permissions to conduct the Facies Mapping field work at the UCR upper reach operable unit, including the National Park Service Permit received on September 24, 2018. Fieldwork began on September 25, 2018 with the field crew establishing survey control points. Work on the water collecting survey data began on October 2, 2018 and will continue until approximately November 15, 2018, weather permitting. Pilot study field work for the porewater sampling and sediment sampling with a freeze grab sampler was conducted during the week of September 24, 2018, and the benthic macroinvertebrate reconnaissance survey was conducted during the week of September 18, 2018. TAI presented general results during a conference call with EPA on October 18, 2018. The toxicity identification evaluation (TIE) pilot study began on October 9, 2018 and preliminary results from the 14-day tests were presented to EPA during a conference call on October 30, 2018. At the time of writing, TAI delivered a draft technical memorandum with results of the sediment freeze grab sampling pilot study for EPA review on November 9, 2018.

Background Soil Assessment – TAI received approval to finalize the Data Quality Objectives (DQOs) for Determination of Background Metal and Metalloid Concentrations in Upland Soils from EPA via electronic mail on October 23, 2018. As such, TAI finalized the DQOs and delivered the document to EPA on October 24, 2018.

Delineation Study – TAI is in receipt of a letter from EPA dated May 25, 2018 transmitting EPA’s Air Modeling Protocol Outline for the Delineation Study. TAI is currently reviewing and evaluating the outline and developing of a draft protocol based on the outline in coordination with EPA. TAI delivered preliminary draft DQOs for the delineation study to EPA on September 27, 2018 for review and comment.

Human Health Risk Assessment (HHRA) – Conference calls were held during the month of October to continue discussion between EPA and TAI regarding further comments on EPA’s preliminary draft River-Associated Baseline Human Health Risk Assessment: Upper Columbia River Site and regarding the draft Recreational Use Survey Data Analysis Report. TAI submitted a technical memorandum to EPA titled “Use of Residential Soil Lead Concentrations in the Pre-Draft Baseline Human Health Risk Assessment: Upper Columbia River Site” on October 9, 2018. This technical memo was revised to update the data table and submitted to EPA on October 15, 2018, and further information on metals concentrations in soil removal action backfill materials provided to EPA on October 17 and October 30, 2018.

Data Management Plan – TAI delivered the draft final Data Management Plan Amendment No. 1 to EPA for review on October 25, 2018 based on comments received from EPA on February 16, 2018.

Should you have any questions or require any additional information, please do not hesitate to contact me at 509-623-4501.